Section 1. Registration Information

Source Identification

Facility Name:	Siegfried USA, LLC
Parent Company #1 Name:	Siegfried Holding AG
Parent Company #2 Name:	

Submission and Acceptance

Submission Type:	Re-submission
Subsequent RMP Submission Reason:	Voluntary update (not described by any of the above reasons)
Description:	
Receipt Date:	27-Nov-2018
Postmark Date:	27-Nov-2018
Next Due Date:	27-Nov-2023
Completeness Check Date:	27-Nov-2018
Complete RMP:	Yes
De-Registration / Closed Reason:	
De-Registration / Closed Reason Other Text:	
De-Registered / Closed Date:	
De-Registered / Closed Effective Date:	
Certification Received:	Yes

Facility Identification

EPA Facility Identifier:	1000 0011 6536
Other EPA Systems Facility ID:	08070GNSCHINDUS
Facility Registry System ID:	

Dun and Bradstreet Numbers (DUNS)

Facility DUNS:	1213784
Parent Company #1 DUNS:	
Parent Company #2 DUNS:	

Facility Location Address

Street 1:	33 Industrial Park Road
Street 2:	
City:	Pennsville
State:	NEW JERSEY
ZIP:	08070
ZIP4:	
County:	SALEM

Facility Latitude and Longitude

Latitude (decimal):	39.629389
Longitude (decimal):	-75.534083
Lat/Long Method:	Classical Surveying Techniques
Lat/Long Description:	Center of Facility
Horizontal Accuracy Measure:	61
Horizontal Reference Datum Name:	North American Datum of 1983

Source Map Scale Number:

Owner or Operator

Operator Name:	Siegfried USA, LLC
Operator Phone:	(856) 678-3601

Mailing Address

Operator Street 1:	33 Industrial Park Road
Operator Street 2:	
Operator City:	Pennsville
Operator State:	NEW JERSEY
Operator ZIP:	08070
Operator ZIP4:	
Operator Foreign State or Province:	
Operator Foreign ZIP:	
Operator Foreign Country:	

Name and title of person or position responsible for Part 68 (RMP) Implementation

RMP Name of Person:	Kenneth Zrebiec
RMP Title of Person or Position:	General Manager
RMP E-mail Address:	

Emergency Contact

Emergency Contact Name:	Kevin Klinger
Emergency Contact Title:	Safety & Health Manager
Emergency Contact Phone:	(856) 678-8836
Emergency Contact 24-Hour Phone:	(856) 678-3601
Emergency Contact Ext. or PIN:	
Emergency Contact E-mail Address:	kevin.klinger@siegfried-usa.com

Other Points of Contact

Facility or Parent Company E-mail Address:	
Facility Public Contact Phone:	
Facility or Parent Company WWW Homepage Address:	www.siegfried-usa.com

Local Emergency Planning Committee

LEPC:	Pennsville Twp LEPC

Full Time Equivalent Employees

Number of Full Time Employees (FTE) on Site:	165
FTE Claimed as CBI:	

Covered By

OSHA PSM :	Yes
EPCRA 302 :	Yes

CAA Title V:	Yes
Air Operating Permit ID:	65485

OSHA Ranking

OSHA Star or Merit Ranking:	

Last Safety Inspection

Last Safety Inspection (By an External Agency) Date:	11-Jun-2018
Last Safety Inspection Performed By an External Agency:	OSHA

Predictive Filing

Did this RMP involve predictive filing?:	

Preparer Information

Preparer Name:	
Preparer Phone:	
Preparer Street 1:	
Preparer Street 2:	
Preparer City:	
Preparer State:	
Preparer ZIP:	
Preparer ZIP4:	
Preparer Foreign State:	
Preparer Foreign Country:	
Preparer Foreign ZIP:	

Confidential Business Information (CBI)

CBI Claimed:	
Substantiation Provided:	
Unsanitized RMP Provided:	

Reportable Accidents

Reportable Accidents:	See Section 6. Accident History below to determine if there were any accidents reported for this RMP.

Process Chemicals

Process ID:	1000091440
Description:	Building 1 Process
Process Chemical ID:	1000114296
Program Level:	Program Level 3 process
Chemical Name:	Ethyl ether [Ethane, 1,1'-oxybis-]
CAS Number:	60-29-7
Quantity (lbs):	22000
CBI Claimed:	
Flammable/Toxic:	Flammable

Process ID:	1000091441
Description:	Stg and Handling Process
Process Chemical ID:	1000114297
Program Level:	Program Level 3 process
Chemical Name:	Ethyl ether [Ethane, 1,1'-oxybis-]
CAS Number:	60-29-7
Quantity (lbs):	100000
CBI Claimed:	
Flammable/Toxic:	Flammable

Process ID:	1000091442
Description:	Waste Stg and Handling
Process Chemical ID:	1000114298
Program Level:	Program Level 3 process
Chemical Name:	Ethyl ether [Ethane, 1,1'-oxybis-]
CAS Number:	60-29-7
Quantity (lbs):	100000
CBI Claimed:	
Flammable/Toxic:	Flammable

Process NAICS

Process ID:	1000091440
Process NAICS ID:	1000092680
Program Level:	Program Level 3 process
NAICS Code:	325411
NAICS Description:	Medicinal and Botanical Manufacturing

Process ID:	1000091441
Process NAICS ID:	1000092681
Program Level:	Program Level 3 process
NAICS Code:	325411
NAICS Description:	Medicinal and Botanical Manufacturing

Process ID:	1000091442
Process NAICS ID:	1000092682
Program Level:	Program Level 3 process
NAICS Code:	325411
NAICS Description:	Medicinal and Botanical Manufacturing

Section 2. Toxics: Worst Case

No records found.

Section 3. Toxics: Alternative Release

No records found.

Section 4. Flammables: Worst Case

Flammable Worst ID: 1000054560

Model Used:	Areal Locations of Hazardous Atmospheres
Endpoint used:	1 PSI

Passive Mitigation Considered

Blast Walls:	
Other Type:	

Section 5. Flammables: Alternative Release

Flammable Alter ID: 1000051556

Model Used:	Areal Locations of Hazardous Atmospheres

Passive Mitigation Considered

Dikes:	Yes
Fire Walls:	
Blast Walls:	
Enclosures:	
Other Type:	

Active Mitigation Considered

Sprinkler System:	
Deluge System:	
Water Curtain:	
Excess Flow Valve:	
Other Type:	

Section 6. Accident History

No records found.

Section 7. Program Level 3

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000096517
Chemical Name:	Ethyl ether [Ethane, 1,1'-oxybis-]
Flammable/Toxic:	Flammable
CAS Number:	60-29-7

Process ID:	1000091440
Description:	Building 1 Process
Prevention Program Level 3 ID:	1000077716
NAICS Code:	325411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	27-Jun-2017

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	26-Sep-2017

The Technique Used

What If:	Yes
Checklist:	
What If/Checklist:	
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	26-Sep-2017

Major Hazards Identified

Toxic Release:	
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	Yes
Polymerization:	
Overpressurization:	Yes
Corrosion:	
Overfilling:	Yes
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes

Earthquake:	
Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	Human Factors

Process Controls in Use

Vents:	Yes
Relief Valves:	
Check Valves:	
Scrubbers:	Yes
Flares:	
Manual Shutoffs:	Yes
Automatic Shutoffs:	
Interlocks:	
Alarms and Procedures:	Yes
Keyed Bypass:	
Emergency Air Supply:	
Emergency Power:	
Backup Pump:	
Grounding Equipment:	Yes
Inhibitor Addition:	Yes
Rupture Disks:	Yes
Excess Flow Device:	
Quench System:	
Purge System:	
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	Yes
Dikes:	Yes
Fire Walls:	Yes
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	
Neutralization:	
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	
Perimeter Monitors:	
None:	Yes
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	

Installation of Process Controls:	
Installation of Process Detection Systems:	
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	
None Recommended:	
None:	Yes
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	15-Jan-2018

Training

Training Revision Date (The date of the most recent review or revision of training programs):	01-Jan-2018

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	
Demonstration:	
Observation:	
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	01-Jan-2018
Equipment Inspection Date (The date of the most recent equipment inspection or test):	03-Jul-2018
Equipment Tested (Equipment most recently inspected or tested):	T-1011

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	17-Jan-2018
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Jan-2018

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	05-Mar-2018

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	30-Jun-2018
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	19-May-2017
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	31-Dec-2018

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	01-Mar-2016

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	03-Jan-2012

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	01-Apr-2014
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	23-Apr-2018

Confidential Business Information

CBI Claimed:	

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000096518
Chemical Name:	Ethyl ether [Ethane, 1,1'-oxybis-]
Flammable/Toxic:	Flammable
CAS Number:	60-29-7

Process ID:	1000091441
Description:	Stg and Handling Process
Prevention Program Level 3 ID:	1000077717
NAICS Code:	325411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	28-Jun-2018

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	18-Dec-2014

The Technique Used

What If:	Yes
Checklist:	
What If/Checklist:	
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	28-Jul-2017

Major Hazards Identified

Toxic Release:	
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	
Overfilling:	
Contamination:	
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	
Earthquake:	

Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	Human Factors

Process Controls in Use

Vents:	
Relief Valves:	Yes
Check Valves:	
Scrubbers:	
Flares:	
Manual Shutoffs:	
Automatic Shutoffs:	
Interlocks:	
Alarms and Procedures:	Yes
Keyed Bypass:	
Emergency Air Supply:	
Emergency Power:	
Backup Pump:	
Grounding Equipment:	Yes
Inhibitor Addition:	
Rupture Disks:	
Excess Flow Device:	
Quench System:	
Purge System:	
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	
Dikes:	Yes
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	
Neutralization:	
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	
Perimeter Monitors:	
None:	Yes
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	
Installation of Process Controls:	

Installation of Process Detection Systems:	
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	
None Recommended:	
None:	Yes
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	01-Oct-2015

Training

Training Revision Date (The date of the most recent review or revision of training programs):	01-Jan-2018

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	
Demonstration:	
Observation:	
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	01-Jan-2018
Equipment Inspection Date (The date of the most recent equipment inspection or test):	07-Sep-2018
Equipment Tested (Equipment most recently inspected or tested):	LEL Detection/Alarm Sytem

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	18-Sep-2013
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Jan-2018

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	30-Jun-2018
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	01-Mar-2016

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	03-Jan-2012

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	01-Apr-2014
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	23-Apr-2018

Confidential Business Information

CBI Claimed:	

Description

No description available.

Program Level 3 Prevention Program Chemicals

Prevention Program Chemical ID:	1000096519
Chemical Name:	Ethyl ether [Ethane, 1,1'-oxybis-]
Flammable/Toxic:	Flammable
CAS Number:	60-29-7
Process ID:	1000091442
Description:	Waste Stg and Handling
Prevention Program Level 3 ID:	1000077718
NAICS Code:	325411

Safety Information

Safety Review Date (The date on which the safety information was last reviewed or revised):	27-Jun-2017

Process Hazard Analysis (PHA)

PHA Completion Date (Date of last PHA or PHA update):	05-Oct-2017

The Technique Used

What If:	Yes
Checklist:	
What If/Checklist:	
HAZOP:	
Failure Mode and Effects Analysis:	
Fault Tree Analysis:	
Other Technique Used:	
PHA Change Completion Date (The expected or actual date of completion of all changes resulting from last PHA or PHA update):	05-Oct-2017

Major Hazards Identified

Toxic Release:	
Fire:	Yes
Explosion:	Yes
Runaway Reaction:	
Polymerization:	
Overpressurization:	Yes
Corrosion:	
Overfilling:	Yes
Contamination:	Yes
Equipment Failure:	Yes
Loss of Cooling, Heating, Electricity, Instrument Air:	Yes
Earthquake:	

Floods (Flood Plain):	
Tornado:	
Hurricanes:	
Other Major Hazard Identified:	human factors

Process Controls in Use

Vents:	
Relief Valves:	Yes
Check Valves:	
Scrubbers:	
Flares:	
Manual Shutoffs:	
Automatic Shutoffs:	
Interlocks:	Yes
Alarms and Procedures:	Yes
Keyed Bypass:	
Emergency Air Supply:	
Emergency Power:	
Backup Pump:	
Grounding Equipment:	Yes
Inhibitor Addition:	Yes
Rupture Disks:	
Excess Flow Device:	
Quench System:	
Purge System:	Yes
None:	
Other Process Control in Use:	

Mitigation Systems in Use

Sprinkler System:	
Dikes:	Yes
Fire Walls:	
Blast Walls:	
Deluge System:	
Water Curtain:	
Enclosure:	
Neutralization:	
None:	
Other Mitigation System in Use:	

Monitoring/Detection Systems in Use

Process Area Detectors:	Yes
Perimeter Monitors:	
None:	
Other Monitoring/Detection System in Use:	

Changes Since Last PHA Update

Reduction in Chemical Inventory:	
Increase in Chemical Inventory:	
Change Process Parameters:	
Installation of Process Controls:	

Installation of Process Detection Systems:	
Installation of Perimeter Monitoring Systems:	
Installation of Mitigation Systems:	
None Recommended:	
None:	Yes
Other Changes Since Last PHA or PHA Update:	

Review of Operating Procedures

Operating Procedures Revision Date (The date of the most recent review or revision of operating procedures):	01-Dec-2016

Training

Training Revision Date (The date of the most recent review or revision of training programs):	01-Jan-2018

The Type of Training Provided

Classroom:	Yes
On the Job:	Yes
Other Training:	

The Type of Competency Testing Used

Written Tests:	Yes
Oral Tests:	
Demonstration:	
Observation:	
Other Type of Competency Testing Used:	

Maintenance

Maintenance Procedures Revision Date (The date of the most recent review or revision of maintenance procedures):	01-Jan-2018
Equipment Inspection Date (The date of the most recent equipment inspection or test):	15-Mar-2018
Equipment Tested (Equipment most recently inspected or tested):	LEL Detection/Alarm System

Management of Change

Change Management Date (The date of the most recent change that triggered management of change procedures):	22-Sep-2015
Change Management Revision Date (The date of the most recent review or revision of management of change procedures):	01-Jan-2018

Pre-Startup Review

Pre-Startup Review Date (The date of the most recent pre-startup review):	22-Sep-2015

Compliance Audits

Compliance Audit Date (The date of the most recent compliance audit):	30-Jun-2018
Compliance Audit Change Completion Date (Expected or actual date of completion of all changes resulting from the compliance audit):	

Incident Investigation

Incident Investigation Date (The date of the most recent incident investigation (if any)):	29-Nov-2017
Incident Investigation Change Date (The expected or actual date of completion of all changes resulting from the investigation):	03-Jan-2018

Employee Participation Plans

Participation Plan Revision Date (The date of the most recent review or revision of employee participation plans):	01-Mar-2016

Hot Work Permit Procedures

Hot Work permit Review Date (The date of the most recent review or revision of hot work permit procedures):	03-Jan-2012

Contractor Safety Procedures

Contractor Safety Procedures Review Date (The date of the most recent review or revision of contractor safety procedures):	01-Apr-2014
Contractor Safety Performance Evaluation Date (The date of the most recent review or revision of contractor safety performance):	23-Apr-2018

Confidential Business Information

CBI Claimed:	

Section 8. Program Level 2

No records found.

Section 9. Emergency Response

Written Emergency Response (ER) Plan

Community Plan (Is facility included in written community emergency response plan?):	Yes
Facility Plan (Does facility have its own written emergency response plan?):	Yes
Response Actions (Does ER plan include specific actions to be taken in response to accidental releases of regulated substance(s)?):	Yes
Public Information (Does ER plan include procedures for informing the public and local agencies responding to accidental release?):	Yes
Healthcare (Does facility's ER plan include information on emergency health care?):	Yes

Emergency Response Review

Review Date (Date of most recent review or update of facility's ER plan):	01-Nov-2017

Emergency Response Training

Training Date (Date of most recent review or update of facility's employees):	03-Aug-2018

Local Agency

Agency Name (Name of local agency with which the facility ER plan or response activities are coordinated):	OEM - Pennsville Township
Agency Phone Number (Phone number of local agency with which the facility ER plan or response activities are coordinated):	(856) 678-3089

Subject to

OSHA Regulations at 29 CFR 1910.38:	Yes
OSHA Regulations at 29 CFR 1910.120:	Yes
Clean Water Regulations at 40 CFR 112:	Yes
RCRA Regulations at CFR 264, 265, and 279.52:	Yes
OPA 90 Regulations at 40 CFR 112, 33 CFR 154, 49 CFR 194, or 30 CFR 254:	Yes
State EPCRA Rules or Laws:	Yes
Other (Specify):	

Executive Summary

In 1970, Siegfried (USA), Inc. (formerly named Ganes Chemicals, Inc.) bought a 146-acre site in Pennsville, NJ and in 1973 began producing active ingredients for the pharmaceutical industry. These ingredients are used in a variety of prescription and over-the-counter drugs used for blood pressure control, weight reduction, decongestant, anti-depressant, anti-nausea and HIV treatment. Over the years, the facility has expanded steadily and now includes three manufacturing buildings, two warehouses, offices, labs, a maintenance shop, a waste treatment facility, a dryer building, and a milling and blending facility.

Siegfried USA has always been committed to operating its facility in a safe and environmentally responsible manner. Over the years, we have continuously improved our safety and environmental programs and in the mid 1980s these programs were further enhanced by our compliance with the New Jersey Toxic Catastrophe Prevention Act (TCPA) and later with the Occupational Safety and Health Administration's (OSHA) Process Safety Management Standard. One of the additions to the program was the establishment of an Emergency Response Team made up of trained Ganes employees. When the Environmental Protection Agency (EPA) came out with the requirement to establish a Risk Management Program (RMP) by June 1999, we only had to make some minor adjustments in our in our existing programs. One of the adjustments was with regard to communications between Siegfried USA and the local and county emergency response groups. We updated our respective emergency response plans and discussed how to improve notification to the community should an emergency occur.

During 1997 and 1999, Siegfried USA opened its doors to the neighbors. The residents were allowed to familiarized themselves with the facility. In 2008, Siegfried received the ChemStewards Tier II certification for it's SHE&S program. This is a SOCMA program and requires periodic re-certification by an outside auditor.

Siegfried was formerly under EPA RMP in the early 2000's for the chemical Phosgene. Siegfried discontinued the use of Phosgene, thereby removing itself from EPA RMP. Siegfried was re-introduced into EPA RMP in June of 2013, due to exceeding the TQ for diethyl ether.

Flammable Worst Case Scenario:
Flammable worst case scenario 1 assumes that T-1011, the 1,000-gallon reactor that is filled with 5713 lbs of diethyl ether during the Step 7 process, releases the entire amount of diethyl ether due to a faulty valve. The spill creates a puddle with an area of 364 m2 and a thickness of 1 cm. Although the spill occurs within a building, this scenario assumes a worst-case offsite consequence and is calculated as if it occurred if an open area. Using ALOHA, diethyl ether is modeled to determine the maximum evaporative rate. Using the aforementioned model, the overpressure endpoint of 1 psi and 2.3 psi were determined. There were no offsite area impacts from either radiant heat due to flammability or from an overpressure explosion.

Flammable Alternate Case Scenario:
The flammable alternative release scenario 1 assumes that the waste ethers storage tank, BT-8108, releases the entire amount of diethyl ether due to a faulty valve. The spill creates a puddle with an area of 84 m2 and a thickness of 1.1 ft. Using ALOHA, diethyl ether is modeled to determine the maximum evaporative rate. Using the aforementioned model, the overpressure endpoint of 1 psi and 2.3 psi were determined. There were no offsite area impacts from either radiant heat due to flammability or from an overpressure explosion.

General accidental release prevention and chemical specific prevention:
The facility is inspected annually by New Jersey's Department of Environmental Protection to verify compliance with the following New Jersey Toxic Catastrophe (TCPA) requirements:

- Process Safety Information: includes the process design and safe operational limits information.
- Process Hazard Analysis: to identify and address potential safety hazards.
- Risk Assessment: to estimate and reduce the likelihood and impact of potential accident scenarios, to investigate State-of-the-Art equipment and procedures.
- Standard Operating Procedures: detailed procedures ensuring safe operation.
- Operator Training: annual training qualifying operators to operate the processes.
- Mechanical Integrity/Preventative Maintenance: program to inspect and maintain equipment and systems to prevent equipment failure.
- Management of Change: system to ensure that all changes to equipment and procedures are reviewed and properly documented.
- Pre-startup/safety review: initial review before the batch is started to ensure that all systems are in place correctly.

- Compliance Audits: annual audits to verify compliance with the program requirements.
- Incident Investigation: to identify the root cause of accidents and prevent recurrence.
- Employee Participation: requires that employees involved with the chemical are included in the program.
- Hot Work Permit: ensures that hot work is controlled to minimize fires and explosions.
- Annual Reports: annual reports submitted to the NJDEP verifying compliance and corrective actions.

Five-year accident history:
Siegfried USA has not had any accidents involving the storage, handling and use of diethyl ether.

Emergency Resonse Program:
There is a comprehensive emergency response plan. The plant has a trained Emergency Response Team. Monthly training sessions ensure that all members meet annual training requirements. Special training is conducted for EHS handling & storage, use, equipment, detection systems and response procedures. All employees are trained annually in basic emergency recognition, alarms, sheltering, headcount and evacuation procedures. Those employees and contractors that work unescorted in the area adjacent to the EHS storage areas are also trained in basic awareness and evacuation procedures. Emergency drills are conducted annually to test the emergency response plan and provide hands-on training for both on-site and off-site emergency responders.

Program Updates:
Mid 2000's - Siegfried discontinues use of Phosgene. Siegfried's EPM RMP goes dormant.
June 2013 - Siegfried's EPA RMP program is reinstated for the handling and use of Diethyl Ether. The storage and handling area is registered at 100,000 lbs of diethyl ether.
January 2014 - The registered quantity of Diethyl Ether in Process #47651 is increased due to the upscale of a process step. The waste storage and handling process is added, which includes bringing BT-8108 storage tank online. These changes resulted in a modification to both the worst-case and alternate-case scenarios for flammables for the site.